

LM-79

Test Report

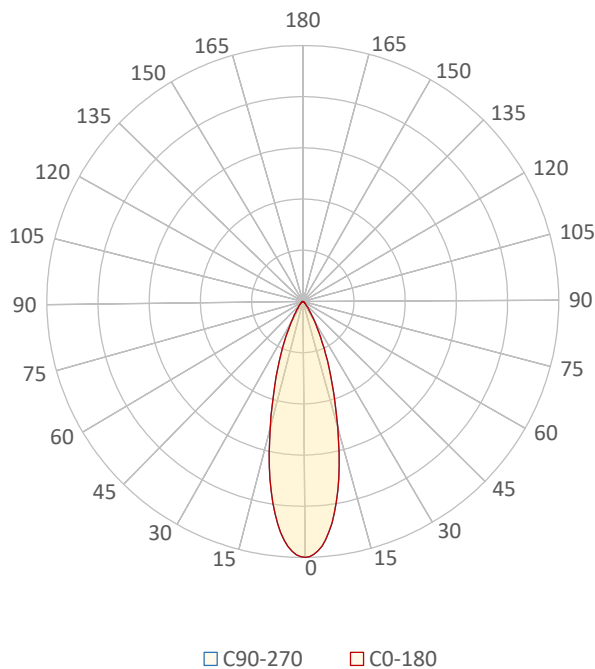
LM79-REVO-MICRO-BASIC-2200K-CRI80-30DEG

General Description

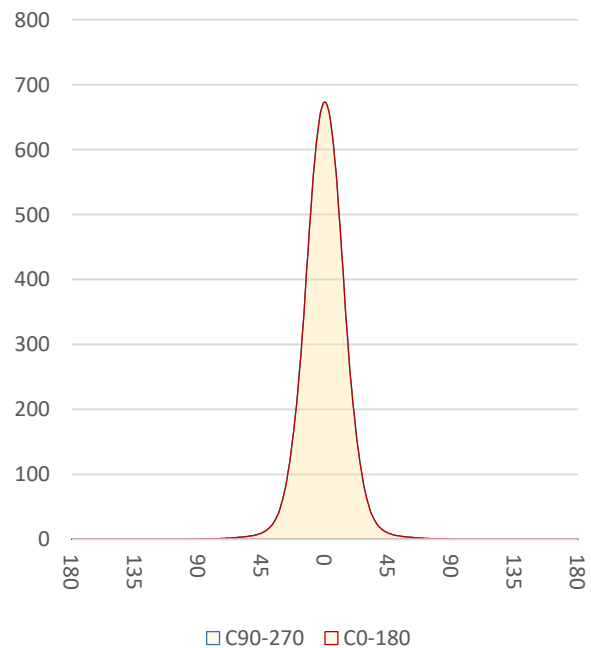
Item number	RM-X-X-10-3
Date and time	29-10-2021 11:09:18
CCT (Kelvin)	2168 K
Beam angle	30,5°
Luminous flux	242 lm
Efficiency	47 lm/watt
Weighted energy	5,1 kWh/1000h
Power factor	0,49
CRI (RA)	86,2
Fidelity index Rf	Rf 88,1
Gammut index Rg	Rg 95,9
Peak	673 cd



Polar diagram



Cartesian diagram



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Beam details	1m	2m	3m	4m	5m														
Lux*	673 lx	168 lx	75 lx	42 lx	27 lx														
*measured at center of beam																			
Footcandles*	62,6 fcd	15,6 fcd	7,0 fcd	3,9 fcd	2,5 fcd														
Beam width (meter)	0,5 m	1,1 m	1,6 m	2,2 m	2,7 m														
Beam width (Feet)	1,8 ft	3,6 ft	5,4 ft	7,2 ft	8,9 ft														
Beam intensities																			
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
673lx	168lx	75lx	42lx	27lx	19lx	14lx	11lx	8lx	7lx	6lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx
3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	19,7ft	23ft	26,2ft	29,5ft	32,8ft	36,1ft	39,4ft	42,7ft	45,9ft	49,2ft	52,5ft	55,8ft	59,1ft	62,3ft	65,6ft
62,6fcd	15,6fcd	7fcd	3,9fcd	2,5fcd	1,7fcd	1,3fcd	1fcd	0,8fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd
Intensities in 0° c-plane																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
673	666	645	610	563	506	443	377	314	258	211	170	135	105	81	61	46	35	27	21
100%	99%	96%	91%	84%	75%	66%	56%	47%	38%	31%	25%	20%	16%	12%	9%	7%	5%	4%	3%
Intensities in 90° c-plane																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
673	666	645	610	563	506	443	377	314	258	211	170	135	105	81	61	46	35	27	21
100%	99%	96%	91%	84%	75%	66%	56%	47%	38%	31%	25%	20%	16%	12%	9%	7%	5%	4%	3%
Intensities in 180° c-plane																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
673	666	645	610	563	506	443	377	314	258	211	170	135	105	81	61	46	35	27	21
100%	99%	96%	91%	84%	75%	66%	56%	47%	38%	31%	25%	20%	16%	12%	9%	7%	5%	4%	3%
Intensities in 270° c-plane																			
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
673	666	645	610	563	506	443	377	314	258	211	170	135	105	81	61	46	35	27	21
100%	99%	96%	91%	84%	75%	66%	56%	47%	38%	31%	25%	20%	16%	12%	9%	7%	5%	4%	3%
Beam angle 50%		Field angle 10%				Cutoff angle 2,5%				Intensity ratio in 120° cone				Intensity ratio in 90° cone					
30,5°		58,6°				79,6°				98,4%				95,4%					



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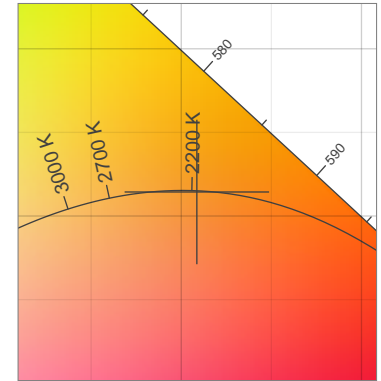
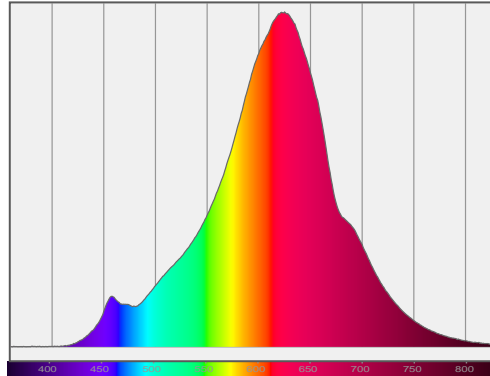
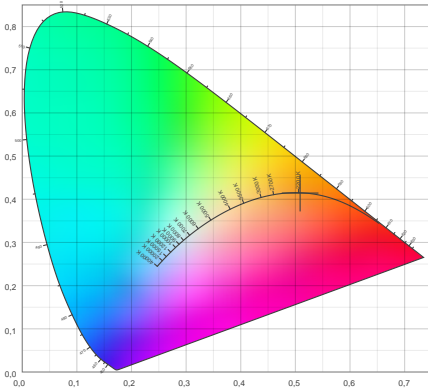
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Color details



CIE 1931

x: 0,509



Spectra

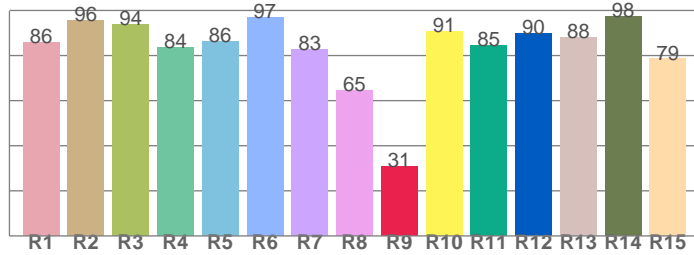
CIE 1931 ZOOM

2168 K

y: 0,414

Δuv : -0,0003

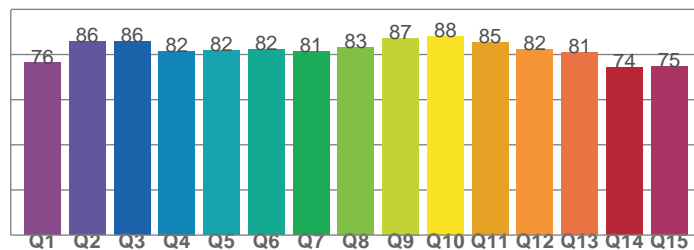
CRI: 86,2 (R1-R8)



CRI values, R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8
85,7	95,7	93,7	83,8	86,4	97,1	82,6	64,5
R9	R10	R11	R12	R13	R14	R15	
30,9	90,8	84,7	89,8	88,2	97,5	78,5	

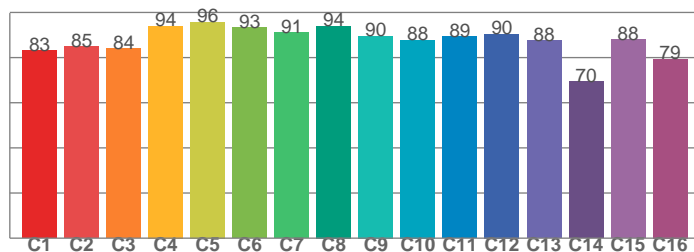
CQS: 81,2



CQS values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
76,3	85,9	85,8	81,6	81,9	82,3	81,4	83,1
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
87,3	88,1	85,2	82,2	80,8	74,2	74,6	

TM30: 88,1



TM30 values, 16 binned values out of total of 99 values

C1	C2	C3	C4	C5	C6	C7	C8
83,1	85,0	84,0	93,9	95,8	93,2	91,1	94,1
C9	C10	C11	C12	C13	C14	C15	
89,6	87,8	89,3	90,4	87,5	69,5	88,1	

Color parameters

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2168 K	86,2	30,9	88,1	95,9	81,2	0,509	0,414	0,293	0,357	-0,0003



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TM30 details

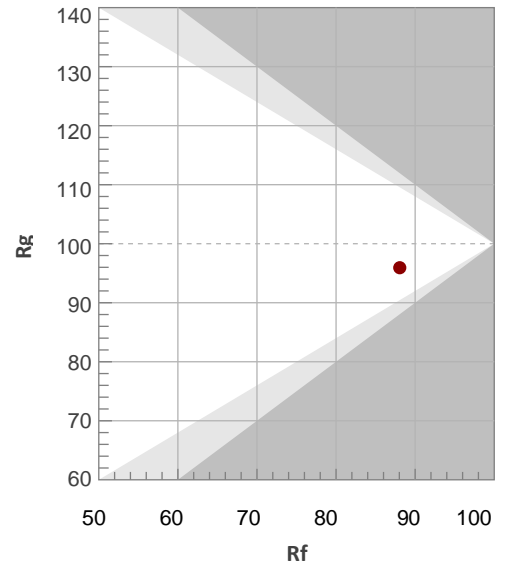
Rf 88,1

Fidelity index Rf

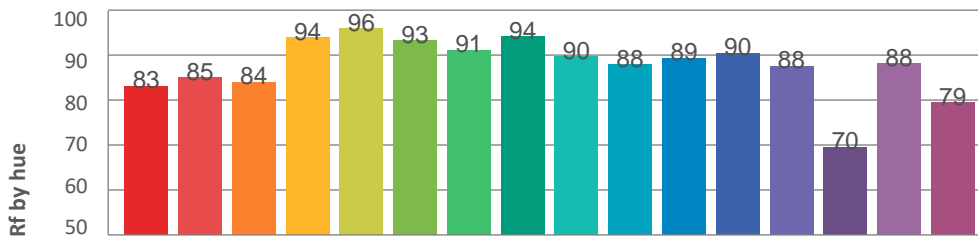
Rg 95,9

Gammut index Rg

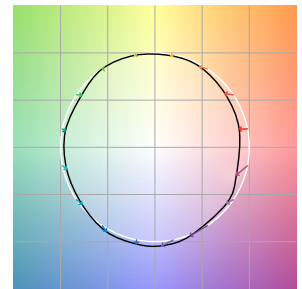
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	83	-9%	2%
2	85	-7%	6%
3	84	-3%	8%
4	94	-2%	3%
5	96	0%	2%
6	93	0%	0%
7	91	-5%	-3%
8	94	-4%	2%
9	90	-4%	4%
10	88	-2%	7%
11	89	3%	6%
12	90	4%	1%
13	88	4%	-13%
14	70	-1%	-21%
15	88	-4%	-7%
16	79	-10%	-12%



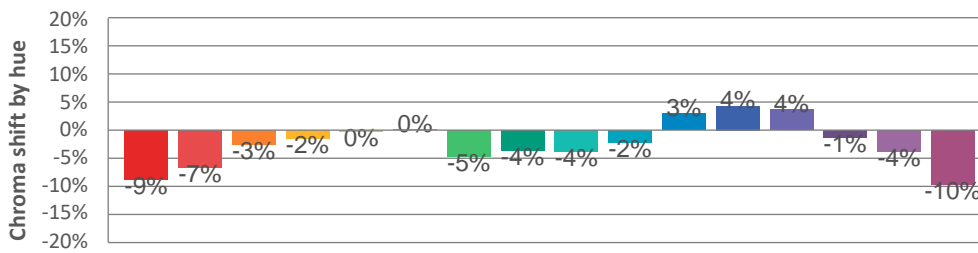
Hue binH



Color vector graphics



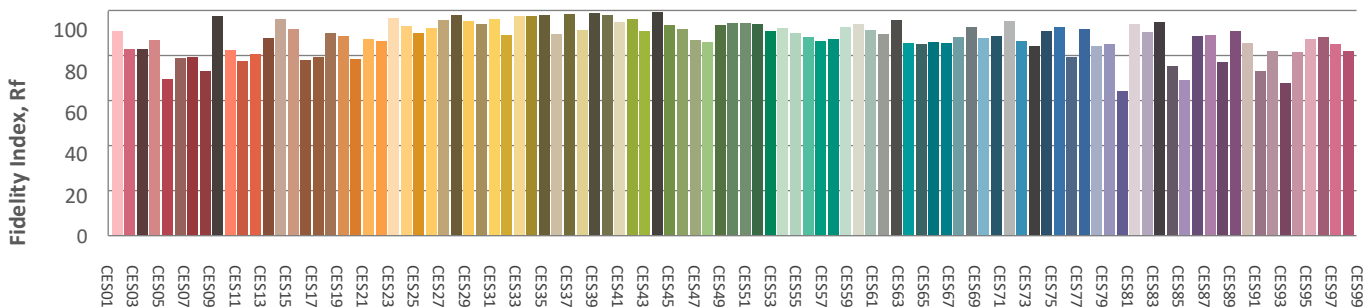
Hue bin



Color distortion graphics



Color Evaluation Sample



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Glare Evaluation According to UGR

p Ceiling	70	70	50	50	30	70	70	50	50	30	
p Walls	50	30	50	30	30	50	30	50	30	30	
p Floor	20	20	20	20	20	20	20	20	20	20	
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	16,6	17,1	16,7	17,3	17,5	16,6	17,1	16,7	17,3	17,5
	3H	16,8	17,5	17,2	17,7	17,9	16,8	17,5	17,2	17,7	17,9
	4H	16,9	17,6	17,3	17,8	18,0	16,9	17,6	17,3	17,8	18,0
	6H	17,1	17,6	17,3	17,9	18,2	17,1	17,6	17,3	17,9	18,2
	8H	17,0	17,6	17,4	17,9	18,3	17,0	17,6	17,4	17,9	18,3
	12H	17,0	17,5	17,4	17,9	18,3	17,0	17,5	17,4	17,9	18,3
4H	2H	16,5	17,2	16,9	17,4	17,6	16,5	17,2	16,9	17,4	17,6
	3H	17,1	17,6	17,4	17,9	18,3	17,1	17,6	17,4	17,9	18,3
	4H	17,2	17,7	17,6	18,1	18,6	17,2	17,7	17,6	18,1	18,6
	6H	17,3	17,8	17,8	18,2	18,5	17,3	17,8	17,8	18,2	18,5
	8H	17,3	17,8	17,8	18,1	18,5	17,3	17,8	17,8	18,1	18,5
	12H	17,3	17,7	17,8	18,1	18,5	17,3	17,7	17,8	18,1	18,5
8H	4H	17,2	17,7	17,7	18,0	18,4	17,2	17,7	17,7	18,0	18,4
	6H	17,4	17,7	17,9	18,2	18,7	17,4	17,7	17,9	18,2	18,7
	8H	17,5	17,7	18,0	18,2	18,9	17,5	17,7	18,0	18,2	18,9
	12H	17,5	17,7	18,1	18,2	18,8	17,5	17,7	18,1	18,2	18,8
12H	4H	17,2	17,5	17,7	17,9	18,4	17,2	17,5	17,7	17,9	18,4
	6H	17,4	17,7	17,9	18,2	18,8	17,4	17,7	17,9	18,2	18,8
	8H	17,5	17,7	18,1	18,2	18,8	17,5	17,7	18,1	18,2	18,8
Variation of the observer position for the luminaire distance S											
S = 1.0H	2,7 / -1,7					2,7 / -1,7					
S = 1.5H	4,8 / -2,2					4,8 / -2,2					
S = 2.0H	6,5 / -2,8					6,5 / -2,8					
Standard table	n/a					n/a					
Correction summand	n/a					n/a					
Corrected glare indices referring to 242lm total luminous flux											



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